Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (previously presented)An auto-enrichener for an engine, comprising:

an enriching conduit for carrying fuel and air to the engine;

a valve disposed in said conduit, said valve being adjustable between at least an open configuration and a closed configuration, wherein in said open configuration passage of fuel and air through said conduit is enabled, and in said closed configuration passage of fuel and air through said conduit is not enabled;

a thermal expansion element in communication with said valve, wherein said thermal expansion element expands with increasing temperature and contracts with decreasing temperature, said thermal expansion element actuating said valve such that when said thermal expansion element is at a first temperature said valve is in said open configuration, and when said thermal expansion element is at a second temperature greater than said first temperature said valve is in said closed configuration, said thermal expansion element comprising a liquid portion disposed within a flexible solid portion, wherein said liquid portion expands with increasing temperature and contracts with decreasing temperature; and

a heater in thermal communication with said thermal expansion element.

2. (canceled)

3. (previously presented)The auto-enrichener of claim 1, wherein:

said liquid portion comprises silicone.

4. (previously presented)The auto-enrichener of claim 1, wherein:

said flexible solid portion comprises wax.

5. (original) The auto-enrichener of claim 1, wherein:

said heater is an electric heater.

6. (original) The auto-enrichener of claim 1, wherein:

said heater is in communication with said engine such that said heater heats said thermal expansion element when said engine is running, and said heater does not heat said thermal expansion element when said engine is not running.

7. (original) The auto-enrichener of claim 1, wherein:

said valve comprises a valve plug movably engaged with said thermal expansion element so as to be movable between open closed positions;

wherein when said valve plug is in said open position said valve is in said open configuration, and when said valve plug is in said closed position said valve is in said closed configuration; and

said thermal expansion element actuates said plug between said open and closed positions so as to actuate said valve between said open and closed positions.

8. (original) The auto-enrichener of claim 7, wherein:

said valve comprises a valve rod engaged with said valve plug and said thermal expansion element, such that when said thermal expansion element expands said rod is actuated such that said plug is translated toward said closed position, and when said thermal expansion element contracts said rod is actuated such that said plug is translated toward said open position.

9. (original) The auto-enrichener of claim 1, wherein:

said valve is adjustable between said open and closed configuration and at least one intermediate configuration, wherein in said intermediate configuration passage of fuel and air through said conduit is enabled, and a rate of passage of fuel and air through said conduit when said valve is in said intermediate configuration is less than a rate of passage of fuel and air through said conduit when said valve is in said open configuration; and

when said thermal expansion element is at a third temperature greater than said first temperature and less than said second temperature, said valve is in said intermediate configuration.

10. (previously presented)An all terrain vehicle including the auto-enrichener of claim 1.

11. (currently amended) A method for controlling engine enrichment in an engine, comprising:

providing an enriching conduit for carrying fuel and air to the engine;

providing a valve disposed in said conduit, said valve being adjustable between at least an open configuration and a closed configuration, wherein in said open configuration passage of fuel and air through said conduit is enabled, and in said closed configuration passage of fuel and air through said conduit is not enabled;

providing a thermal expansion element coupled to said valve in a coaxial arrangement, wherein said thermal expansion element expands with increasing temperature and contracts with decreasing temperature, said thermal expansion element actuating said valve such that when said thermal expansion element is at a first temperature said valve is in said closed configuration, and when said thermal expansion element is at a second temperature greater than said first temperature said valve is in said open configuration, said thermal expansion element comprises a liquid portion disposed within a flexible solid portion, and wherein said liquid portion expands with increasing temperature and contracts with decreasing temperature;

providing a heater in thermal communication with said thermal expansion element; and

heating said thermal expansion element with said heater when said engine is running, and not heating said thermal expansion element when said engine is not running, such while said engine is running said valve is actuated toward said closed configuration, and while said engine is not running said valve is actuated toward said open configuration.

12. (canceled)

13. (currently amended) The method of claim [[12]] 11, wherein:

said liquid portion comprises silicone.

14. (currently amended) The method of claim [[12]] 11, wherein:

said flexible solid portion comprises wax.

15. (original) The method of claim 11, wherein:

said heater is an electric heater.

16. (original) The method of claim 11, wherein:

said heater is in communication with said engine such that said heater heats said thermal expansion element when said engine is running, and said heater does not heat said element when said engine is not running.

17. (original) The method of claim 11, wherein:

said valve comprises a valve plug movably engaged with said thermal expansion element so as to be movable between open closed positions;

wherein when said valve plug is in said open position said valve is in said open configuration, and when said valve plug is in said closed position said valve is in said closed configuration; and

said thermal expansion element actuates said plug between said open and closed positions so as to actuate said valve between said open and closed positions.

18. (original) The method of claim 17, wherein:

said valve comprises a valve rod engaged with said valve plug and said thermal expansion element, such that when said thermal expansion element expands said rod is actuated such that said plug is translated toward said closed position, and when said thermal expansion element contracts said rod is actuated such that said plug is translated toward said open position.

19. (original) The method of claim 11, wherein:

said valve is adjustable between said open and closed configuration and at least one intermediate configuration, wherein in said intermediate configuration passage of fuel and air through said conduit is enabled, and a rate of passage of fuel and air through said conduit when said valve is in said intermediate configuration is less than a rate of passage of fuel and air through said conduit when said valve is in said open configuration; and

when said thermal expansion element is at a third temperature greater than said first temperature and less than said second temperature, said valve is in said intermediate configuration.

20. (previously presented)An auto-enrichener for engine, comprising:

an enriching conduit defining a flow path for fuel and air to an engine;

a valve movable between a first position removed from the flow path wherein the valve enables passage of fuel and air to the engine, and a second position wherein the valve is positioned within the flow path to inhibit passage of fuel and air to the engine;

a thermal expansion element coupled to the valve, wherein the thermal expansion element expands with increasing temperature and contracts with decreasing temperature to move the valve between the first and second positions; and

a heater in thermal communication with the thermal expansion element, wherein the heater heats the thermal expansion element from a first temperature associated with the first valve position to a second temperature associated with the second valve position, the first temperature being greater than the second temperature.

21. (previously presented)The auto-enrichener of claim 20, wherein the heater is an electric heater.

22. (previously presented)The auto-enrichener of claim 20, wherein said heater is in communication with the engine such that the heater heats the thermal expansion element when the engine is running, and the heater does not heat the thermal expansion element when the engine is not running.

23. (currently amended) An auto-enrichener for an engine, comprising:

an enriching conduit defining a flow path for fuel and air to an engine;

a valve movable between first and second positions relative to the flow path to control the flow of fuel and air to the engine;

a thermal expansion element coupled to the valve, wherein the thermal expansion element expands with increasing temperature and contracts with decreasing temperature to move

the valve between the first and second positions, the direction of expansion and contraction being substantially the same as the direction of movement of the valve between the first and second positions; and

a heater in thermal communication with the thermal expansion element to heat the thermal expansion element thereby expanding the thermal expansion element, the heater providing heat generated by the engine.

24. (canceled)

25. (new) A method for controlling engine enrichment in an engine, comprising:

providing an enriching conduit for carrying fuel and air to the engine;

providing a valve disposed in said conduit, said valve being adjustable between at least an open configuration and a closed configuration, wherein in said open configuration passage of fuel and air through said conduit is enabled, and in said closed configuration passage of fuel and air through said conduit is not enabled;

providing a thermal expansion element coupled to said valve in a coaxial arrangement, wherein said thermal expansion element expands with increasing temperature and contracts with decreasing temperature, said thermal expansion element actuating said valve such that when said thermal expansion element is at a first temperature said valve is in said closed configuration, and when said thermal expansion element is at a second temperature greater than said first temperature said valve is in said open configuration;

providing an electric heater in thermal communication with said thermal expansion element; and

heating said thermal expansion element with said heater when said engine is running, and not heating said thermal expansion element when said engine is not running, such while said engine is running said valve is actuated toward said closed configuration, and while said engine is not running said valve is actuated toward said open configuration.

26. (new) A method for controlling engine enrichment in an engine, comprising:

providing an enriching conduit for carrying fuel and air to the engine;

providing a valve disposed in said conduit, said valve being adjustable between at least an open configuration and a closed configuration, wherein in said open configuration passage of

fuel and air through said conduit is enabled, and in said closed configuration passage of fuel and air through said conduit is not enabled;

providing a thermal expansion element coupled to said valve in a coaxial arrangement, wherein said thermal expansion element expands with increasing temperature and contracts with decreasing temperature, said thermal expansion element actuating said valve such that when said thermal expansion element is at a first temperature said valve is in said closed configuration, and when said thermal expansion element is at a second temperature greater than said first temperature said valve is in said open configuration;

providing a heater in thermal communication with said thermal expansion element and in communication with said engine; and

heating said thermal expansion element with said heater when said engine is running, and not heating said thermal expansion element when said engine is not running, such while said engine is running said valve is actuated toward said closed configuration, and while said engine is not running said valve is actuated toward said open configuration.

27. (new) A method for controlling engine enrichment in an engine, comprising:

providing an enriching conduit for carrying fuel and air to the engine;

providing a valve disposed in said conduit, said valve being adjustable between at least an open configuration and a closed configuration, wherein in said open configuration passage of fuel and air through said conduit is enabled, and in said closed configuration passage of fuel and air through said conduit is not enabled;

providing a thermal expansion element coupled to said valve in a coaxial arrangement, wherein said thermal expansion element expands with increasing temperature and contracts with decreasing temperature, said thermal expansion element actuating said valve such that when said thermal expansion element is at a first temperature said valve is in said closed configuration, and when said thermal expansion element is at a second temperature greater than said first temperature said valve is in said open configuration;

providing a heater in thermal communication with said thermal expansion element; and

heating said thermal expansion element with said heater when said engine is running, and not heating said thermal expansion element when said engine is not running, such while said engine is running said valve is actuated toward said closed configuration, and while said engine is not running said valve is actuated toward said open configuration;

wherein said valve comprises a valve plug movably engaged with said thermal expansion element so as to be movable between open closed positions, when said valve plug is in said open position said valve is in said open configuration, when said valve plug is in said closed position said valve is in said closed configuration, and said thermal expansion element actuates said plug between said open and closed positions so as to actuate said valve between said open and closed positions.

28. (new) The method of claim 27, wherein said valve comprises a valve rod engaged with said valve plug and said thermal expansion element, such that when said thermal expansion element expands said rod is actuated such that said plug is translated toward said closed position, and when said thermal expansion element contracts said rod is actuated such that said plug is translated toward said open position.